

Frank Stratmann



Dr. Frank Stratmann

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Function

Group Leader Experimental Cloud Physics

Department

Experimental Aerosol and Cloud Microphysics Department

Research areas & research interest

- aerosol cloud interactions
- cloud microphysics and turbulence interactions
- heterogeneous ice nucleation
- cloud droplet activation
- computational fluid and particle dynamics modelling

Current projects

- AC3 B04 (DFG-TR 172 Project): Spatial distribution, sources, and cloud processing of aerosol particles.
- ACDC2 (NSF-Project): Preliminary studies for the construction of an aerosol cloud turbulence chamber.
- ACTRIS (EU Project)
- ACTRIS-D (BMBF Project): Extension of the measuring technology at LACIS-T
- ATMO-ACCESS (EU-Project): Develop and implement sustainable access to the LACIS-T research infrastructure.
- CLOUD-MOTION (EU, FP7, Marie Curie Project): Cloud condensation nuclei and ice nucleating particles at the CLOUD chamber at CERN.
- CIRRUS-HL (DFG-PP 1294 Project): Physical and chemical properties of cloud particle residuals and ice nucleating particles associated with clouds at high latitudes from mixed-phase to cirrus levels. (HALO-CVI-HERA, HALO 2021, CIRRUS-HL)
- DACAPO-PESO (in-situ): Long-term in-situ studies on the physical properties of aerosols (focus on CCN and INP) in the Southern Ocean region

- goSouth (BMBF-Project): Model-assisted vertical in situ study of aerosols, and aerosol-cloud-turbulence interactions in the Southern Hemisphere marine boundary layer.
- VACCINE+ (DFG-Project): Variation in Antarctic cloud condensation nucleus (CCN) and ice nucleus (INP) concentrations and properties at NEumayer III compared to their values in the Arctic at Villum Research Station.
- IDEFIX (DFG-Project): Quantification of secondary ice formation mechanisms: the fragmentation of freezing droplets vs. droplet-ice particle collision.
- STEP (EU Marie Curie Project): Solving The Entrainment Puzzle.

Completed projects

- Hera4HALO (DFG-PP 1294 project)
- PAMARCMiP (DFG-TR 172 project), campaign report
- EUROCHAMP2020 (EU, FP 7, infrastructure project)
- ACE-SPACE (SPI project)
- MARPARCLOUD (SAW-PAKT project)
- CLOUD-16 (BMBF project)
- BACCHUS (EU FP7 project)
- CLOUD-12 (BMBF project)
- INUIT (DFG Research Unit)
- LACCT (WGL PAKT project)
- LGS-CAR (WGL PAKT project)
- CLOUD-ITN (EU FP7 Marie Curie project)
- CLOUD-09 (BMBF project)
- EUROCHAMP (EU FP7 Infrastructure project)
- EUROCHAMP II (EU FP7 Infrastructure project)
- DFG Collaborative Research Center (SFB 209)

Teaching

Teaching at the University of Leipzig, Faculty for Physics and Geoscience, Meteorological Institute

Memberships and Boards

07/2008-07/2016	Board member of the International Conference on Clouds and Precipitation
02/2008-12/2013	Workpackage leader EU-FP7 Infrastructure Project EUROCHAMP II
07/2004-08/2009	Board member of the International Conference on Nucleation and Atmospheric Aerosols
09/1998-09/2002	Board member of the German Aerosol Research Society (GAeF)
09/1993-09/2001	Head of the Working-Group "Aerosol Modelling" within the European Aerosol Assembly (EAC)
09/1992-09/1993	Coordinator of the European Aerosol Conference Duisburg

Curriculum vitae

Academic qualification

1992	PhD in Electrical Engineering from the University of Duisburg, Institute for Aerosol Measurement Technology (summa cum laude), 1992, Prof. H. Fissan
1986	Diplom (M.Sc.) in Mechanical Engineering from the University of Duisburg
1979-1986	Study at the University of Duisburg, Germany

Research Experience

01/2013-07/2017	Head of Experimental Aerosol and Cloud Physics Department, Institute for Tropospheric Research, Leipzig, Germany
08/2006-12/2006	Visiting Professor at the University of Helsinki, Department of Physics, Atmospheric Sciences, Helsinki, Finland (Host: M. Kulmala)
since 06/1998	Head of the Cloud Group at the Leibniz Institute for Tropospheric Research, Leipzig, Germany

since 04/1994	Senior scientist at the Leibniz Institute for Tropospheric Research, Leipzig, Germany
06/1992-03/1994	Postdoctoral scientist at the University of Duisburg, Institute for Aerosol Measurement Technology, Germany (Head: H. Fissan)

Publications

List of publications

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